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MANAGING OUR OWN BEHAVIOR: SOME HIDDEN ISSUES

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Malott's paper seems less a thorough argument about his titled theme than a casual stroll through a minefield of issues embedded in almost any discussion of graduate training in behavior analysis. It is easy to find premises and conclusions to disagree with, and developing such critiques might be an educational exercise. In the interest of facilitating discussion, I would like to highlight a few hidden issues and, in the process, offer some additional arguments.

A Call for Disciplinary Research

Malott may be criticized for offering too few empirical facts as a basis for some of his statements, but he had little choice. There is almost no empirical data base describing the graduates that behavior analysis training programs produce, the training that produced them, the careers these graduates build, and how well their training prepared them for what they actually wind up doing. There is also little formal evidence about the changing needs of the employment markets that new graduates face and the things they will be called on to do once they have jobs.

Unlike other established disciplines, we have not yet developed a regular program of disciplinary research. We are just now beginning to define the minima that constitute a training program in behavior analysis (Hopkins, 1991). As a result, we do not even know how many masters and doctoral degrees are earned each year, much less the details of a graduate's competencies. We also do not know much about the kinds of baccalaureate training our students bring to graduate school or why they choose the career directions they do. Neither have we studied the personnel needs of the discipline or its employment markets.

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The question of whether behavior analysis needs proportionally more researchers or practitioners cannot be answered until we know what we are producing now. If these data were available, however, we could still not answer this question. We would also have to figure out how we wanted the field to develop over the next decade or so. In addition, we would have to study the potential employers of graduates and the annual demand they create for different kinds of behavior analysts. This might show us conflicts between how we want the discipline to develop and the needs of its users (e.g., we might want more applied researchers even when certain markets need more practitioners). These data, in turn, would challenge us to decide how behavior analysis might manage its production of graduate degrees. These are new problems for us, and we have a lot to talk about.

The collection of these data is too important to leave to the vagaries of individual research motivations; they should be one of the routine functions of the Association for Behavior Analysis (ABA). ABA should support the continuing collection of data concerning graduate training and employee demand, supplemented by particular projects designed to answer specific questions.

Graduate Training Models

Malott's thesis calls for us to discuss graduate training as being partly a matter of producing a product; this idea may not be comfortable for many of us. We are probably more accustomed to talking about an apprenticeship model of graduate training than considering a manufacturing metaphor. Some graduate programs enthusiastically embrace a very open approach to graduate training in which most of a student's experiences result solely from his or her interests, which may often depend on who serves as a major professor. Others make no apologies for requiring a common core of course work for all

students, if not a selection of specific advanced program tracks. The characteristics of such requirements may sometimes have more to do with local resources and politics than the needs of the discipline or employers, however.

The apprenticeship model certainly has its strengths, especially for doctoral study, but it is not incompatible with the notion of managing the scope and direction of graduate training. Many of today's senior faculty were trained at a point in the field's development when there was simply much less material than is now available that could be considered a proper foundation for a masters or doctoral degree in behavior analysis. Similarly, today's jobs, whether academic or applied, may also require a range of competencies that a "pure" apprenticeship training history may sometimes fail to satisfy.

The idea that we can manage certain features of degree production may be new for behavior analysis, but the notion that students are free to choose the directions of graduate training should prompt an easy critique from a radical behavioristic perspective (Skinner, 1971). Conceptual issues aside, graduate faculty know that most students have only very general and ill-formed interests when they begin graduate training and that their eventual career interests tend to adapt to the training and experiences they are offered. In any case, educational philosophy notwithstanding, graduate programs do produce trained students, who can be usefully viewed as one of our products if we want to worry about how good a job we are doing for the students, their employers, and the discipline.

ABA's new accreditation program may encourage graduate programs to address some issues concerning exactly what we ought to be doing in the name of graduate education. The accreditation standards approved by the ABA Executive Council include a number of specific "curriculum topics" that must be taught to or mastered by all students in accredited programs. This is the first time the field of behavior analysis has attempted to influence the education of its personnel, and it should prompt us to consider more carefully than in the past the criteria that guide our future management decisions.

Doctoral, Master's, and Bachelor Programs

One of the issues that Malott did not address clearly, and that the field will have to weigh in considering its training output in relation to the demands of the job market, is the proportion of its graduates produced at different degree levels. According to ABA's *Graduate Training in Behavior Analysis* (1990), graduate programs in behavior analysis offer the customary mix of graduate degree options. In addition, each grouping of behavior-analytic faculty has the potential to offer some undergraduate training in behavior analysis, although local considerations may often preclude offering a clear sequence of courses.

Although the actual number of graduates at each degree level is unknown, it is easy to guess that the market's needs are inversely related to the degree of training. That is, all markets considered, the greatest number of jobs are probably available for those holding the bachelors degree and the smallest number for the doctorate. If true, one problem with this relationship is that coherent programs of instruction in behavior analysis are most highly developed only at the graduate level. At the undergraduate level, whether in psychology or education departments, behavior analysis is not usually represented as a well-identified program of study. Furthermore, the course offerings at this level are likely to be quite limited, and extracurricular experiences (e.g., practica) are probably uncommon, if not rare.

A related problem concerns our understanding of how educational experiences should differ at each degree level. It is clear that graduates holding the BA degree will be employed in service delivery settings, but how well do we know what skills are necessary for effective employment with different service populations and settings? Although MA graduates are also likely to work in applied settings as practitioners, do we know what positions and responsibilities are typical and how students should be prepared for them? There is also a potential conflict between the everyday demands of employment markets and the curricular emphasis of psychology MA programs that require a substantial core of mainstream psychology course work and a research thesis. However, many departments offer-

ing doctoral training are reluctant to offer a terminal nonthesis MA degree that is professionally oriented. In these cases, are we merely offering a junior version of a doctoral degree that is poorly matched to career needs, or is there something about the effects of traditional core requirements and a thesis that justifies the time required?

Applied Research Versus Service Delivery

One issue Malott highlighted clearly has long been quite familiar to clinical psychology. It involves a confrontation that behavior analysis is increasingly facing. Although doctoral training has an honored tradition as a research degree, for many students it is merely a ticket that must be purchased before they can depart on a career as a practitioner. Clinical psychology has yet to develop a consensus on this issue. Instead, it has either pretended to pursue a scientist-practitioner model in which students are supposedly trained to do everything, or it has admitted the interests if not the needs of its students and offered an alternative PsyD model.

Although the evidence is unclear, it seems that most doctoral graduates in behavior analysis do not intend to become researchers and do not conduct or publish archival research as part of their jobs. If this is so, behavior analysis will be able to avoid the consequences of clinical psychology's confusion only if we do a better job of addressing this problem.

I have recently described one approach to this issue (Johnston, 1991, in press) and will not repeat the details here. In brief, embedded in this old problem is an important issue that goes to the heart of how we define applied behavior analysis in particular and behavior analysis overall. The present conception of applied behavior analysis embodies the confusion that clinical psychology has struggled with—a failure to distinguish honestly between research and service delivery at a number of levels. In our case, the confusion has pervaded our conception of the discipline by intermingling applied research and service interests in such a way that a distorted model of applied research has resulted. One result is an unnecessarily weak though large applied research literature that is overly subservient to service delivery needs. Research problems are often conceptualized in terms of the need for immediate, practical solutions, and methodological compromises are frequently resolved in favor of applied interests.

As we come to grips with some of these issues, I believe we must revise our conception of applied behavior analysis in such a way that we greatly strengthen applied research in quantity, focus, and methodology. One part of this challenge must involve a better appreciation of how applied research should be defined. Clearly distinguishing it from service delivery will be a crucial step, and the distinction will have unavoidable implications for graduate education. Beyond a common core, I suspect we should train practitioners somewhat differently than we train applied researchers, although I am not sure exactly what the differences should be. Unfortunately, Malott's paper seems to be reaching this conclusion prematurely by failing to consider the larger issues, of which graduate training curricular are but one consequence.

In Summary

I disagree with a number of points in Malott's commentary. For reasons that I have not attempted to articulate, I disagree that we need to train "few scientists and many practitioners." I am especially troubled with the proposal of such a laissez faire approach to developing graduate training curricula (i.e., we should each teach what we do best). I am certainly not comfortable with the status quo in applied behavior analysis at any level. In other words, it is not difficult to quibble with some of his data, arguments, and conclusions.

Nevertheless, Malott's proposal is useful in calling for us to debate a variety of issues concerning how we train behavior analysts at all degree levels. In particular, for the sake of our field's future, we must begin to manage our training and production of behavior analysts with the same behavioral skills we bring to other applied problems. This will mean collecting data that help define the issues and guide policies. These policies must address the future development of the entire discipline by leading to contingencies that will appropriately influence pro-

fessional behavior. We especially need to build support for coordinated action. It will not matter how effective behavior analysis can be in the areas of research and service if it does not produce sufficient numbers of graduates at all levels who are well prepared to serve both the discipline and its users.

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